



Marine Pollution

The ocean covers almost three quarters of our planet. Populations in coastal regions are growing and placing increasing pressure on coastal and marine ecosystems. Marine pollution of many kinds threatens the health of the ocean and its living resources. While the past decades have seen efforts at the local, national and international levels to address the problems of marine pollution, more needs to be done.

The Challenges

Numerous forms of pollution from a variety of land, sea, and air-based sources undermine the health of the ocean. Of these sources, it is estimated that 80 percent of marine pollution originates on land. Two of the most prevalent types of marine pollution are nutrient pollution and marine debris.

Nutrient pollution emanates from diverse sources including agricultural runoff and sewage and wastewater discharges. It overloads marine environments with high concentrations of nitrogen, phosphorous and other nutrients, which can produce large algal blooms. The decomposition of these algae after they die consumes oxygen, which in turn creates hypoxic, or oxygen depleted “dead zones” where fish and other marine life cannot thrive. An estimated 500 dead zones now exist in the world and many more areas suffer adverse effects of high nutrient pollution. Toxic algal blooms also harm economies as they can severely disrupt the fisheries and tourism upon which many communities depend.

Marine debris – trash and other solid material that enters the ocean – threatens wildlife and marine habitats and presents health and safety concerns for humans. Trash and debris in coastal and ocean ecosystems also pose safety hazards and impose significant direct and indirect costs to society. Packaging and plastics consistently make up a significant percent of all marine trash. Preventing trash from entering the ocean presents a huge challenge due to the many sources, including municipal storm sewers, poor trash management by industrial and waste management facilities, disposal from vessels and offshore platforms, and littering by individuals in coastal and inland areas. The challenge is heightened by the fact that effective trash and litter prevention strategies require significant changes in the behavior of businesses, government entities, and individual citizens.

Steps Forward

The Our Ocean conference will draw attention to serious marine pollution issues while also highlighting best practices and innovative efforts at many levels to address these problems around the world. Conference participants will consider, among other things, ways to stop pollutants from entering the marine environment in the first place. For marine debris, these may include improved materials management and collection, handling, and recycling or disposal of waste. For nutrient

pollution these may include more efficient use of fertilizers, improved wastewater management and other techniques to minimize nutrient run-off.

An active media outreach effort, including a social media “Call to Action”, is raising public awareness of the need to protect the ocean and give ordinary citizens a way to contribute. Private sector and civil society participants will describe initiatives underway to safeguard the ocean’s health, and build bridges that will empower future collaboration. The conference will also provide an opportunity for all stakeholders to discuss and unite behind a set of common sense understandings to protect and restore the ocean’s health that can then be taken forward in the media, civil society initiatives, and diplomatic processes. With respect to marine pollution, these understandings could include:

- raising awareness of the linkages between upstream sources of pollution and the downstream impacts of those pollutants on the marine environment, human health and economic development
- enhancing the ability to monitor the sources of nutrient marine pollution in order to understand, forecast and prevent harmful algae blooms that cause marine dead zones
- strengthening management and recovery of products that contribute to marine debris, particularly plastic waste, with an emphasis on stopping pollution at the source
- strengthening implementation of management measures to reduce the loss of fishing gear and other marine-based pollution
- setting specific targets for reducing nutrient run-off from land and for reducing marine debris from all sources
- protecting and restoring coastal ecosystems that serve as natural buffers and filters that clean pollutants from coastal waters